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ABSTRACT

This booklet, which was developed for use by 4-H club members in Pennsylvania, contains the information required to sew a two-piece nontailored outfit and/or a one-or two-piece dress. The following are among the topics covered: the difference between a fiber and a fabric; properties of different fibers and fabrics; common jacket, neckline, sleeve, dress, and skirt styles; ways of reducing bulk and handling ease when sewing seams; the importance of clipping and notching when using a sewing pattern to cut and sew garments; the concept of nap and the procedure for laying out one-way designs; tips on matching striped and plaid fabrics; and miscellaneous sewing hints. Also included are spaces for 4-H club members to recount their completion of the sewing project and record the following: things they learned during the sewing project; project-related information shared with others; and the item, fiber content, cost of each garment made, and the time required to make it. Concluding the booklet is a section on helping other 4-H members and building leadership skills and information about other sewing-related projects available through student's local extension office or 4-H chapter. (MN)

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ED 419 912

Separates
4-H Textile Science Advanced Project

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4-H Textile Science

Separates

Advanced Project

Separates are great! They can extend and add new life to your wardrobe. They may help you solve fitting problems, too, especially if you're not the same size from top to toe.

Some separates can be mixed and matched easily, while others may look funny together. To decide what works, look in the mirror, "scarecrow" various pieces on a bed or table, or study combinations in catalogs, magazines, and stores. Knowing what "look" you want to create will help you pull together mix-and-match combinations.

Also, remember that what looks wonderful on your best friend may not look as nice on you. Each of us has a different coloring, body shape, size, and proportion.

You will learn:

- Fiber and fabric properties
- Common fashion styles
- To reduce bulk and handle ease
- Nap and one-way designs
- Stripe and plaid tips

You will need:

- Sewing machine
- Pattern(s)
- Woven or knit fabric
- Shears or sewing scissors
- Pins and pincushion
- Measuring tape and gauge
- Other sewing notions as needed
- Parent or leader to help you

Sew:

Choose one or more of these items.

- Two- (or more-) piece non-tailored outfit
- Dress or two-piece dress that is more advanced than the one described in the "Coordinates" project

PENNSTATE

College of Agricultural Sciences Cooperative Extension

Do you know the difference between a fiber and a fabric?

Fibers may be natural or man-made. Natural fibers are made from parts of a plant, from animal hair, or from material spun by an animal. Man-made fibers are made of chemicals that are twisted or plied into a yarn for strength. Fibers have different properties that can tell us something about how they will feel, wear, and launder.

Sometimes several types of fibers are blended to create a fabric with new properties. On products labeled "easy care," for example, you'll often see labels listing both cotton (a fragile plant fiber with good absorption) and polyester (a strong chemical fiber that wrinkles less). Check your clothing labels to see what types of fibers are present and the care they require.

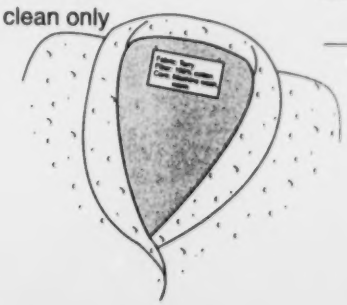
Examples:

Robe
Fabric: Terry
Fiber: 100% cotton
Care: Machine wash, warm

Slacks
Fabric: Gabardine
Fiber: 80% wool, 20% rayon
Care: Dry clean only

Suit
Fabric: Linen
Fiber: 100% Flax
Care: Dry clean only

Tie
Fabric: Satin
Fiber: 100% acetate
Care: Dry clean only



Take the following list and a small dictionary to the fabric store. Identify which of the materials listed below are fibers and which are fabrics by placing a check mark in the appropriate column next to each material. Look at and feel each type of fabric so you'll remember it.

Item	Fiber	Fabric	Item	Fiber	Fabric
acetate			muslin		
acrylic			nylon		
burlap			organdy		
calico			percale		
chenille			polyester		
cotton			poplin		
crepe			rayon		
denim			sateen		
felt			satin		
flannel			seersucker		
flax			silk		
gabardine			taffeta		
gingham			terry		
lace			tricot		
linen			velvet		
mohair			velveteen		
moiré			wool		

In addition to being made from different fibers, fabrics may be **woven**, **knitted**, **matted**, or **knotted**. Common weaves include **plain**, **twill**, and **satin**. When you visit the fabric store, try to answer these questions.

- Which two of the fabrics in the table above are made of satin weave?

  _____ _____

- Which two of the above fabrics usually have a twill weave?

  _____ _____

- Which of the above fabrics has an applied surface that dissolves in water?

  _____

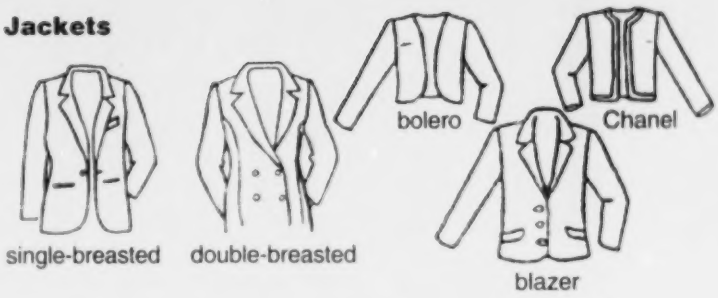
(Answers on back page)

Fashion Dictionary

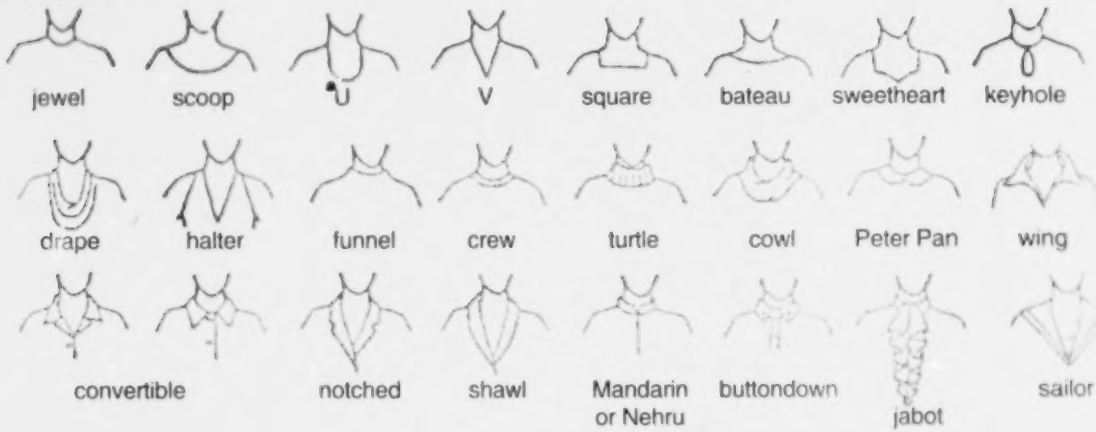
Some Common Styles

Fashion designs or styles are the many types of collars, necklines, cuffs, sleeves, lines, shapes, waistlines, lengths, and other elements that make up a garment. Some of them are listed below. Note that not all styles are in fashion at the same time.

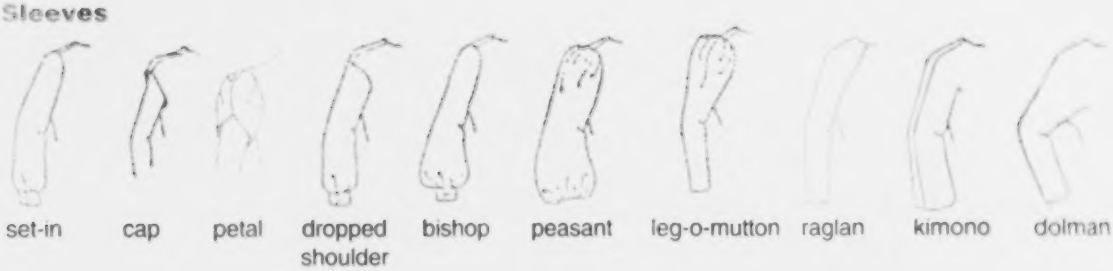
Jackets



Necklines



Sleeves



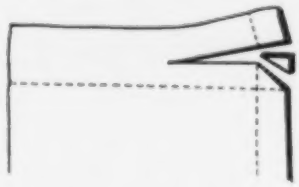
Dresses

Skirts

Bulk

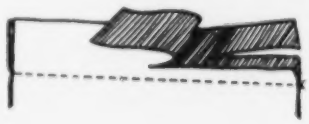
Bulk in garments is created when more than two layers of fabric are joined together or placed on top of each other. When bulk is left in garments, the garment looks poorly made. The solution to bulk is to eliminate it while you are sewing and to reinforce the stitching so that any cutting won't damage the fabric. Trimming, notching, clipping, grading, and pressing are ways to eliminate bulk.

Trimming is cutting away part of the fabric from a seam. Usually, the seam that is cut is the one that will be pressed underneath the wider seam.

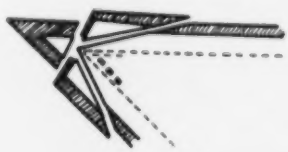


Clipping is making regular snips in a concave seam, and **notching** is removing wedges of fabric from a convex seam.

Grading is trimming each layer of fabric in a seam to a different width. The layer next to the outside of the garment is the widest.



To **reinforce** corners, stitch a second time on top of your first seam; clip close, but not through the stitching; and grade. Take special care with fabrics that ravel. Always experiment with a sample before clipping, notching, or grading your garment.



Pressing also helps to reduce bulk and distribute ease.

Ease

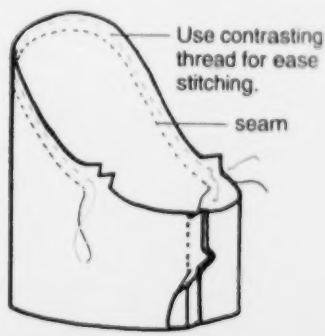
Ease is created when one pattern piece is made slightly larger than the other. This is done on purpose, and allows the fabric to fit over a body curve, giving it a smooth fit and allowing for body movement.

You will see ease typically at the sleeve cap or in a princess seam, but side seams and hems often have ease, too.

When sewn correctly, a seam with ease is smooth and has no puckers, pleats, or gathers. Only the shape can be seen.

Pattern pieces will indicate where ease is located, usually between two notches or dots. To distribute ease, do the following:

- Lengthen the machine stitches slightly and stitch close to, but not on the seam line. Begin and end the stitching beyond the ease marking.
- Pin the seam together with the ease side facing up. Put a pin at the point where the ease begins and another pin where the ease ends. Match any other pattern markings.
- Pull the ease thread until the eased seam is the same size as the other seam. Be careful, because you can quickly pull it too tight.
- Distribute the ease fullness evenly, without puckers or gathers. Pin or baste the seam to hold it in place. Stitch the seam on the stitching line.



Teaching Aid on Clipping and Notching

Creating a professional looking garment requires proper clipping, notching, and grading.

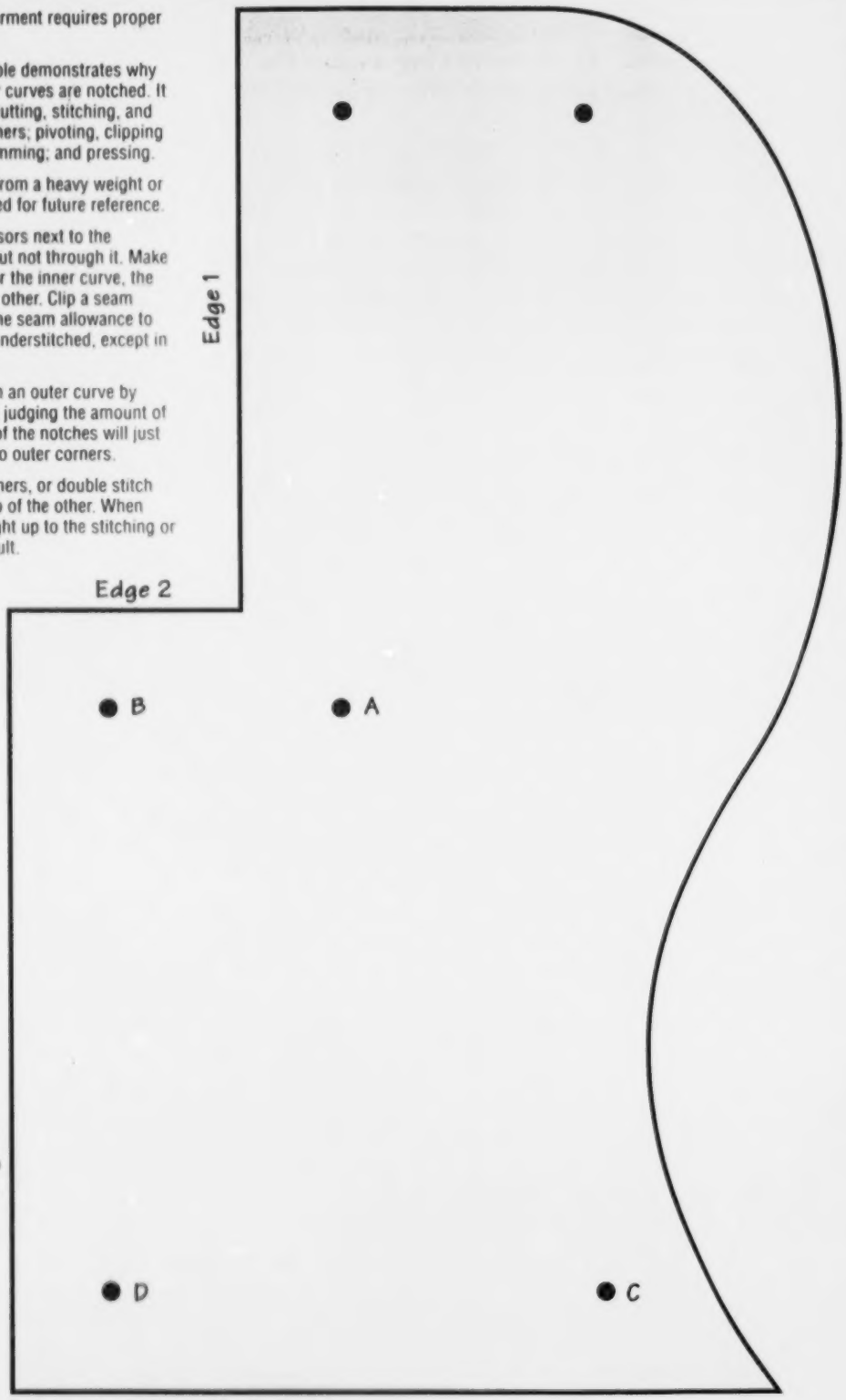
Stitching and examining this sample demonstrates why inner curves are clipped and outer curves are notched. It also teaches the following skills: cutting, stitching, and accurate marking; reinforcing corners; pivoting, clipping and grading seam allowances; hemming; and pressing.

The sample can be made quickly from a heavy weight or fleece interfacing, and can be saved for future reference.

To clip, place the point of the scissors next to the stitching line. Cut up to the line, but not through it. Make clips 1/4" to 3/8" apart. The greater the inner curve, the closer the clips should be to each other. Clip a seam before understitching it to allow the seam allowance to spread. Inner curves are usually understitched, except in tailoring.

Determine the amount to notch on an outer curve by trimming the seam allowance and judging the amount of fabric to be cut out so the edges of the notches will just come together. This also applies to outer corners.

Use a shortened stitch on the corners, or double stitch them, with one line directly on top of the other. When clipping to an inner corner, cut right up to the stitching or a pulled, puckered corner will result.



DIRECTIONS:

1. Cut the shape out of fleece interfacing, fabric or paper.
2. Mark all of the points.
3. Starting at the edge below C, secure the seam and stitch an accurate 5/8" around the shape, finishing at D. Use a shortened stitch at the inner corner and 1" on both sides of point A.
4. Clip along the inner curve and notch along the outer curve. Finger press the edges under. Notice how the seam allowance spreads along the inner curve and comes together along the outer curve.
5. Clip to point A. Fold edges 1 and 2 under to form a sharp corner.
6. Fold edge 3 under and trim the excess fabric at point B.
7. Grade the seams, trimming one seam slightly smaller than the other. Press.
8. Fold the fabric up between C and D to form a hem, and machine- or hand-stitch the hem.

Make another sample by following steps 1-3 only.

Turn both samples right side out and compare each for bulk.

Adapted from a model shared by Mary Ann Crawford

~ Jan Scholl
Penn State Cooperative Extension (1997)

Nap and One-Way Designs

Fabrics with nap can add a lot of interest to clothing. Nap refers to the three-dimensional surface treatment of certain fabrics, especially pile fabrics such as corduroy, velveteen, velvet, and velour. The napped surface is created by weaving or knitting in extra yarns, which often are cut and brushed so they stand up.

Pattern pieces must be cut from napped fabrics so the nap lies in the same direction when the pieces are sewn together; otherwise, the pieces will appear different from each other.

Try this experiment: Cut two pieces of corduroy or other napped fabric, and attach one to each of the squares below so the grain runs vertically in both pieces, but the nap lies in opposite directions: up in one piece, and down in the other.

Do you observe any differences in color between the two swatches?

Rub the fabric swatches. Can you feel a difference between them, even though the grain is oriented vertically in both cases? Describe:

_____

_____

_____

_____

_____

What difference would this make in cutting out a garment? Can you name an uncut pile fabric?

_____

(Answer on back page)

Try the above experiment with uncut pile, too.

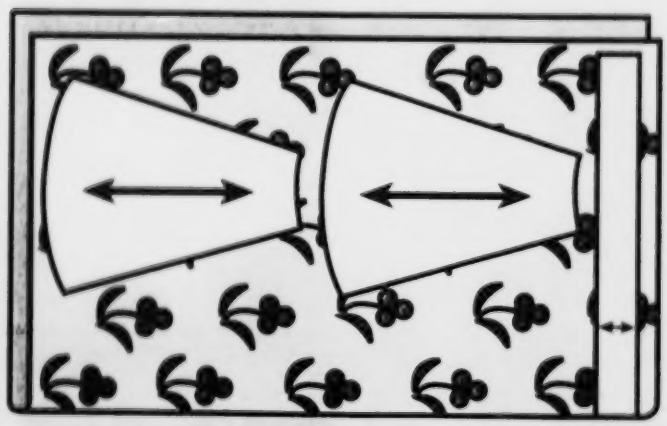
Nap Up **Nap Down**

One-way designs are designs that look different from top to bottom or that are printed with a diagonal slant. The orientation of the flowers on some floral fabrics, for example, makes them one-way designs.

Why do pattern envelopes frequently list special yardage requirements for fabrics with nap or one-way designs?

(Answer on back page)

Layout for one-way designs.

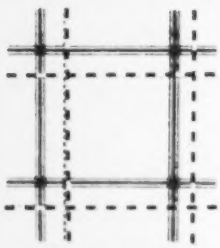


Stripes and Plaids

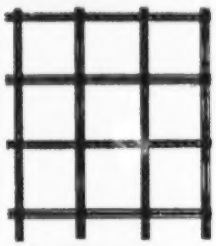
Striped and plaid materials aren't difficult to use if you plan carefully. There are two types of stripes and plaids: uneven and even.

Uneven plaids are unbalanced (they look different) in the lengthwise and crosswise directions. **Uneven stripes** have different widths.

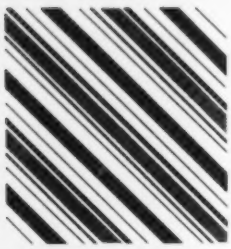
Even plaids are balanced (they look the same) in both directions. **Even stripes** have the same width.



uneven plaid



even plaid



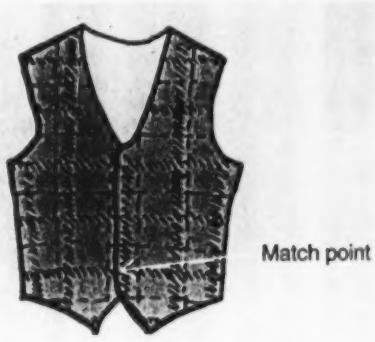
uneven stripe

even stripe

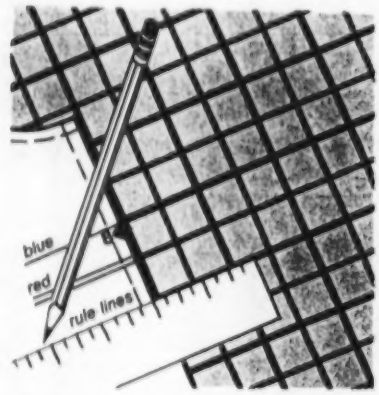
Sewing Hints

- Select fabrics with patterns printed on the grain.
- Select simple designs, with few pattern pieces and seams. Avoid garments with circular design lines, such as rounded yokes, princess lines, and gores. Some patterns state that they are "not suitable for plaids and stripes," so read pattern directions carefully.
- Use the "with nap" layout for uneven plaids and stripes. Match design lines on the stitching line and not on the cutting line. Pockets and other details can be cut on the bias for decorative effect.
- Place the main pattern piece, such as the shirt front, on the fabric first.
- Consider the placement of the dominant design lines:
  - —Place dominant vertical lines at Center Front, Center Back, or at equal distances from the center on the front or back. On the sleeves, center the dominant vertical line.
  - —Place dominant crosswise lines just below the shoulders on the bodice front, or at straight or slightly curved hemlines.
  - —Avoid placing dominant lines at the bust, hips, stomach, or any other area of the body to which you do not want to call attention. Uneven shoulders or hips can distort a plaid or stripe pattern.

The pattern on a two-piece outfit, such as a jacket and a vest, or a jacket and a skirt or slacks, should match at the point where the pieces overlap.



To ensure pattern matching, trace the main lines of the design on the first piece onto a paper pattern. Use different colored pencils and a ruler. Match these lines to the fabric on the second piece.



When cutting on a fold or a double thickness, be sure to check the placement of the plaid pattern or the stripes by "pin stabbing" straight down and looking at the placement before securing the pin. When cutting on a single layer of fabric, be sure to turn the pattern over for the second placement so that the center fronts meet on the correct side.

What I learned in this project this year (new skills, new words)

What I shared with others (presentations, helping other members, community service)

TOPIC OR SKILL	DATE	NUMBER IN AUDIENCE

Did I participate in Fashion Revue? _____

Where? _____ When? _____

Project story

Use this space to write about your project. What did you do? What did you enjoy doing most? Least? Tell about the pattern, fabrics, and fibers you selected. Did you combine several different patterns? Include a picture or make a sketch of your final outfit, complete with accessories. Tell about where you plan to wear your outfit and how you will care for it.

Separates Project Record

4-H Textile Science

Advanced Project

Name _____

Address _____

Age as of January 1 _____

Club _____

Number of years in this project _____

Number of years in Textile Science projects _____

Leader's signature _____

What I made for my project

ITEM	FIBER CONTENT	COST	HOURS TO MAKE

Total number of garments made this year_____.

Provide swatches of three different types of fabrics you learned about in this project.

FABRIC FABRIC FABRIC

People who helped me and resources I used for this project

_____ _____

_____ _____

Helping Other 4-Hers and Building Leadership Skills!

To be a leader in the textile science project and help members with their projects, you need:

- time.
- willingness to help others at their level of interest and skill.
- other 4-H members who would like to work with you.

Here are some suggestions to help you be a textile science project leader:

- Plan short lessons with small steps.
- Try to work throughout the year to build skills, so when it comes time to make an exhibit, members will be ready.
- Have members start working on a sample or sample garment rather than the fashion fabric first.
- Don't underestimate the power that short simple demonstrations can have on members in your club or in the community. Not only will the members learn, but you will, too.
- Share with others as soon as you've learned something. This helps reinforce what you've learned so you will remember it better also!

ANSWERS

Fiber/Fabric Quiz: Fibers—acetate, acrylic, cotton, flax, mohair, nylon, polyester, rayon, silk, wool. **Question 1**—satin, sateen. **Question 2**—denim, gabardine. **Question 3**—moire.

Uncut pile—terry cloth. Cutting out pieces so the nap or designs will match when the garment is assembled often requires extra material.

Want to Know More?

Many books and pamphlets have been written on coordinating separates and accessories. Consider taking the Accessories or Wardrobe Planning project at the same time. Your extension office has lists of ideas and resources for this project on PENpages.

Exhibits and Fashion Revue

Depending on what you make in your project, you may or may not be able to model it in the fashion revue. Ask your leader for information on exhibit listings and fashion revue guidelines. Leaders will need to check with their county extension office each year, as exhibits and guidelines sometimes change. Don't forget to attach fabric labels to each of the garments in your exhibit. Include your name, age, 4-H club, and county.

Taking the Project Again

You may take this project again if you make different garments and choose new activities to help you learn new skills.

Prepared by Jan Schell, associate professor of agricultural and extension education.

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